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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,605	11/09/2001	Robert G. Marcotte	813.0024USU	2507

7590

10/31/2003

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EXAMINER

NGUYEN, JIMMY H

ART UNIT	PAPER NUMBER
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DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

dl-R.

MR

Office Action Summary

Application No.

10/039,605

Applicant(s)

MARCOTTE, ROBERT G.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-15 is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 16 is/are rejected.
- 7) ☒ Claim(s) 2,7 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is made in response to applicant's papers filed on 11/09/2001. Claims 1-16 are currently pending in the application. An action follows below:

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 02/11/2002 and entered as paper No. 2 is considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishi et al. (USPN: 5,828,353, cited in IDS filed 02/11/02), hereinafter Kishi.

As per claims above, Kishi discloses a circuit (see fig. 9) for providing a pulse (fig. 7D) to drive a capacitive load (Cp) or a panel capacitance in a plasma display panel (col. 8, lines 56-57, col. 10, lines 19-20), the circuit comprising a first inductive component (an inductance element 65), a second inductive component (an inductance element 64) in parallel with the first inductive element (65), a first switching device (a transistor TR32), and a second switching device (a transistor TR31). Kishi further teaches that the circuit characterized so that a first current flowing through the first inductive element (65) to produce a quick rising edge and a second current flowing through the first inductive element (65) and the second inductive element

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(64) to produce a less falling edge (fig. 7D, col. 8, lines 40-53, col. 10, lines 4-18). The elements in the claims are read in the reference.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishi, and further in view of Marcotte (USPN: 5,642,018, cited in IDS filed 02/11/02).

As per claims 5 and 6, as noting in fig. 9, Kishi further teaches a switching device (a transistor TR34) connectable to the capacitive load (Cp), for enabling and disabling a path from a voltage supply (Vs) to the capacitive load (Cp), a switching device (a transistor TR33) connectable to the capacitive load (Cp), for enabling and disabling a path from a node of common potential (a node of ground potential) to the capacitive load (Cp), and a controller (a control unit) for controlling the switching devices (TR33, TR34) to enable the paths when a current flows through the first inductive component (L65) (fig. 9, col. 10, lines 60-61). Kishi does not expressly teaches the Kishi controller controlling switching devices (TR33, TR34), responsive to a signal derived from the first inductive component (L65). Accordingly, Kishi discloses all the claimed limitations except that the Kishi controller does not control the switching devices responsive to a signal derived from the first inductive component.

However, as noting in fig. 5 and at col. 4, lines 34-59, Marcotte expressly teaches that by adding a secondary winding to the first inductor (L) to enable the controller (a control network

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20) controlling a switching device (S3) connectable to the capacitive load (Cp), for enabling and disabling a path from a voltage supply (Vcc) to the capacitive load (Cp), and a switching device (S4) connectable to the capacitive load (Cp), for enabling and disabling a path from a node of common potential (a node of ground potential) to the capacitive load (Cp), responsive to a signal derived from the first inductive component (L), the amount of energy transferred by the inductor is always maximized and the Electromagnetic Interference (EMI) effects are reduced. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize Marcotte's teaching above in the circuit of Kishi, i.e., adding a secondary winding to the Kishi first inductive component (L65) and modifying the Kishi controller to control the switching devices, responsive to a signal derived from the first inductive component (L65), in view of the teaching in the Marcotte reference, because this would maximize the amount of energy transferred by the inductor and reduce the Electromagnetic Interference (EMI) effects, as taught by Marcotte (col. 4, lines 53-59).

Regarding to claim 16, the combination of claims 3, 5 and 6 discloses all the limitations recited in claim 16, claim 16 is therefore rejected for the same reasons as set forth in claims 3, 5 and 6 above.

Allowable Subject Matter

7. Claims 2, 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 9-15 are allowed.

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9. The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a circuit for providing a pulse to drive a capacitive load.

Dependent claim 2 identifies the uniquely distinct feature, “a second current that flows through said first inductive component and said second inductive component in series to produce the other of said rising edge and said falling edge”, lines 4-6. Dependent claim 7 identifies the uniquely distinct feature, “a controller responsive to a signal derived from said second inductive component, ... zero”, last 5 lines. Dependent claim 8 identifies the uniquely distinct feature, “a controller responsive to a signal derived from said second inductive component, ... zero”, last 5 lines. Independent claim 9 identifies the uniquely distinct feature, “a second transistor ... in series ... asymmetrical”, last 4 lines. The closest arts, Kishi and Marcotte, as discussed above, either singularly or in combination, fail to anticipate or render the above underlined limitations obvious, in the manner as recited in claims 2 and 7-9.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

JHN
October 15, 2003

Jimmy H. Nguyen
Examiner
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